ABOUT THIS ISSUE

Cement and concrete are essential commodities for a steadily growing and urbanizing world population. Availability, affordability, versatility, and durability have made cement and concrete the second most used material by mankind, behind water. However, their production leaves a large environmental footprint in terms of CO₂ emissions (about 8% of all anthropogenic emissions are associated with the production of cement) as well as depletion of mineral and water resources. Making cement and concrete more sustainable and resilient represents a formidable societal challenge that mineralogists and geochemists can help resolve.

CHANGE IS IN THE EARTH: A NEW ERA OF ELEMENTS

Posner Named Executive Editor

Dr. Esther Posner has been named the new Executive Editor of Elements, following brilliant and successful terms by Dr. Jodi Rosso (2015–2022) and Dr. Pierrette Tremblay (2004–2014). Please join us in welcoming Esther, as well as honoring our past Executive Editors, who are largely responsible for the startup and ongoing success of the magazine.

Esther hails from the freshwater shores of Leelanau County, Michigan (USA), but has been a global traveler for decades, including extended residences in Brazil and Germany, the latter of which where she presently resides with her husband and two young daughters. She graduated top of her class in geology from Grand Valley State University (Michigan, USA) in 2010, earned an MS in geosciences from the University of Arizona (USA) in 2012 under the supervision of Profs. Jibamitra Ganguly and Bob Downs, and then headed off to the Bayerisches Geoinstitut (BGI, Universität Bayreuth, Germany) where she completed her PhD in 2017 under the guidance of Profs. Dave Rubie, Dan Frost, and Gerd Steinle-Neumann. Esther remained at BGI as both a post-doc (2017–2018; 2020–2023) and manager of its world-famous multi-anvil laboratory (2017–2018) in between a few maternity leaves. Her research expertise involves experimental and computational geochemistry, transport and structural properties of minerals and melts, and planetary accretion and core formation. She received GSA’s Best Student Presentation Award in 2008 and AGU’s Rock and Mineral Physics Graduate Research Award in 2018.

But geology isn’t Esther’s only interest. She is also an award-winning writer and academic editor, performance poet, and musician with a special knack for rhyming and composing lyrics about math and science. With her high levels of enthusiasm, Esther is passionate about effective science communication, outreach, and life-long learning. She began professional academic editing in 2017 and quickly became hooked, editing more than 1000 scientific manuscripts in the fields of geoscience, materials science, and engineering since that time. Esther also has a professional background in print journalism and advertising, and has taught a wide variety of courses including Mineralogy Laboratory, Introduction to the Language and Culture of Brazil, SCUBA diving, downhill skiing, and yoga. She even has her own show, “PhD, The Musical.” Esther is certainly a jane of all trades—and has a lot of exciting new ideas in store for Elements. She writes, “I am a long-time fan of Elements magazine and it is a tremendous honor to serve society and the geoscience community in this capacity!” Welcome, Esther!

Evonuk Named Deputy Editor

The Elements editorial staff is expanding to include a new role of Deputy Editor, serving as copyeditor, webmaster, and database manager. Please join us in welcoming Dr. Martha Evonuk to this role. Martha has been working in scientific editing, both independently and as a freelance editor for larger editing companies, since 2012. She conducted post-doctoral research at various institutes, including ETH Zürich in Switzerland, the Bayerisches Geoinstitut in Germany, and the Institut de Recherche en Planétologie et Astrophysique in France, focusing on numerical simulations of the interior of Jovian planets and convection in the Earth’s mantle. Under the supervision of Prof. Gary Glatzmaier, Martha obtained her PhD in 2006 in Planetary Science from the University of California, Santa Cruz, USA, where she also studied astrophysics and optics. A graduate of Boston University in Physics and Earth Sciences, she worked as a lab assistant processing marine sediment samples, analyzing satellite images, and preparing rock samples for thin section. Welcome aboard, Martha!

Chakroborty Named Principal Editor of Mineralogy (2023–2025)

We are thrilled to share that Prof. Dr. Sumit Chakroborty has accepted our invitation to join the editorial board of Elements. Beginning in August 2023, Sumit will assume the role of Principal Editor of Mineralogy. Sumit is a well-known figure within the geosciences and has played an important leadership role in several international organizations, including the Mineralogical Society of America (MSA) and the Goldschmidt Science Committee, and is currently serving as the President of the Geochemical Society. Sumit is a professor of physical—chemical mineralogy at the Institute for Geology, Mineralogy, and Geophysics at Ruhr University Bochum (Germany), as well as the director of RUBION, the Central Unit for Ion Beams and Radionuclides. Sumit effectively combines experimental, theoretical, and field studies to better understand the timescales and mechanisms of important geochemical and cosmochemical processes. He is particularly well known for his work on diffusion chronometry and geospeedometry, and has graciously coordinated and led MSA/DMG diffusion workshops numerous times since 2012. Welcome to Elements, Sumit!

Richard Harrison, Becky Lange, Janne Blichert-Toft, Martha Evonuk, and Esther Posner